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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,867	05/18/2006	Peter Gamon Johns	MSX-106(PC/D/US)	3778
47670 7590 07/17/2008 KELLEY DRYE & WARREN LLP 400 ATLANTIC STREET, 13TH FLOOR STAMFORD, CT 06901				
EXAMINER				
COHEN, STEFANIE J				
ART UNIT		PAPER NUMBER		
4162				
MAIL DATE		DELIVERY MODE		
07/17/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/579,867

Applicant(s)

JOHNS, PETER GAMON

Examiner

STEFANIE COHEN

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-17 is/are rejected.
- 7) ☐ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CIS-300)
- Paper No(s)/Mail Date 5/18/2006

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

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DETAILED ACTION

Claim Objections

Claim 5 is objected to because of the following informalities: Claim 5 does not further limit claim 1. There is no difference between the solder that is claimed in claim 5 and the solder that is claimed in claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 8-9, 11, 13-15 rejected under 35 U.S.C. 102(e) as being unpatentable by Eccles (6726877). Eccles, claim 10, teaches a silver alloy comprising 81-95.409% by weight of silver, .5-6% by weight of copper, .05-5% by weight of zinc and .01-no more than 2.0% by weight of germanium.

Regarding claim 11, Eccles, claim 11, teaches a silver alloy comprising 75-99.159% silver .5-6% copper, .05-5% by weight of zinc, .01-no more than 2% by weight of germanium and .25-6% by weight of tin.

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Regarding claim 14-15, Eccles teaches a silver alloy comprising .02-2% silicon.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over D'Silva (4242134). D' Silva, col. 2 lines 13-14, teaches a silver based brazing alloy comprising 56.5% by weight of silver, 20% by weight of copper, 13.5% by weight of zinc and 10% by weight of germanium. D'Silva, col. 1 lines 59-60 and col. 2 line 1, further teaches that germanium has a low surface tension when molten and is added to depress the melting point of the alloy. It would have been obvious to one of ordinary skill in the art at the time of the invention to decrease weight percentage of the germanium to ensure the soldering operations will not be impeded by an increased viscosity of the molten solder at its surface.

Regarding claims 6 and 7, D'Silva, col. 2 lines 37-38, teaches the alloy can be used in the form of wire or a paste mixture.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over D'Silva (4242134) in view of Eccles (6726877). D' Silva, col. 2 lines 13-14, teaches a

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silver based brazing alloy comprising 56.5% by weight of silver, 20% by weight of copper, 13.5% by weight of zinc and 10% by weight of germanium. It would have been obvious to one of ordinary skill in the art at the time of the invention to decrease weight percentage of the germanium to ensure the soldering operations will not be impeded by an increased viscosity of the molten solder at its surface. Although D'Silva teaches a silver solder composition used in Sterling silver, D'Silva does not teach a composition for Sterling silver. Eccles, col. 2 lines 56-65, teaches a silver alloy composition comprising 81-99.409% by weight silver, .5-6% by weight copper, .01-2.5% by weight of germanium. It would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the silver alloy composition to obtain a specific hardness and grade. It would also have been obvious to one of ordinary skill in the art at the time of the invention to use the Eccles silver composition with the D'Silva silver solder to optimize the effectiveness of the solder joint in the silver alloy.

Claims 10, 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eccles (6726877). Eccles teaches a silver alloy comprising 80-99% by weight of silver, .02-7% by weight of zinc and .01-2.5% by weight of germanium. It would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the germanium content to obtain improved work hardening properties.

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Regarding claim 12, Eccles, claim 11, teaches a silver alloy comprising 75-99.159% silver .5-6% copper, .01-no more than 2% by weight of germanium and .25-6% by weight of tin. It would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the tin content because Eccles, col. 2 lines 42-43, teaches tin improves the castability and wetting performance of the molten alloy.

Regarding claim 16, Eccles, claim 10, teaches a silver alloy comprising 81-99.409% by weight of silver, .02-2% silicon, .5-6% by weight of copper, .05-5% by weight of zinc and .01-no more than 2.0% by weight of germanium. It would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the tin content because Eccles, col. 2 lines 42-43, teaches silicon improves the castability and wetting performance of the molten alloy.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over D'Silva (4242134) in view of Steine (4011056). D'Silva, claim 1, teaches a silver based brazing alloy comprising 5-15% by weight of germanium, 8-18% by weight of zinc, 5-39 percent by weight of copper and 72-82% by weight of silver. It would have been obvious to one of ordinary skill in the art at the time of the invention to decrease weight percentage of the germanium to ensure the soldering operations will not be impeded by an increased viscosity of the molten solder at its surface. Although D'Silva teaches a silver alloy composition, D'Silva does not

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teach incorporating tin into the silver alloy composition. Steine teaches a quinary silver alloy comprising .5-3.5% by weight of tin. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a small amount of tin and zinc into the D'Silva composition because tin and zinc are specific elements that lower the melting point of the overall alloy. Tin and zinc have a lower melting point than that of silver so when combined into the John composition it decreases the melting point of the overall alloy. It also would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the weight percentage of the tin in the alloy to obtain a specific melting point.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEFANIE COHEN whose telephone number is (571)270-5836. The examiner can normally be reached on Monday through Thursday 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jenny McNeil can be reached on 5712721540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Stefanie Cohen

7/15/2008

SC

/Jennifer McNeil/
Supervisory Patent Examiner, Art Unit 4162